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October 22, 2003

CERTIFICATE OF MAILING 37 C.F.R 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: MS DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

October 22, 2003

Date

Charles P. Landrum

MS DD

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

RE:

U.S. Patent Application No. 10/629,329 entitled "METHODS AND COMPOSITIONS USING

POLYNUCLEOTIDES AND POLYPEPTIDES OF RANK-ASSOCIATED INHIBITOR (RAIN)" -

Bryant G. Darnay

Our reference: UTSC:761US Client reference: MDA02-072

Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references C1-C16.

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/UTSC:761US.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,

Charles P. Landrum

Patent Agent Reg. No. 46,855

CPL/kmv Encl.: as noted

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bryant G. Darnay

Serial No.: 10/629,329

Filed: July 29, 2003

For: METHODS AND COMPOSITIONS

USING POLYNUCLEOTIDES AND

POLYPEPTIDES OF RANK-

ASSOCIATED INHIBITOR (RAIN)

Group Art Unit: Unknown

Examiner: Unknown

Atty. Dkt. No.: UTSC:761US

CERTIFICATE OF MAILING 37 C.F.R 1.8

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October 22, 2003

Date

Charles P. Landrum

INFORMATION DISCLOSURE STATEMENT

MS DD

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be 25347278_1.DOC

an admission that the information cited is, or is considered to be, material to patentability as

defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first

Official Action reflecting an examination on the merits, and hence is believed to be timely filed

in accordance with 37 C.F.R § 1.97(b). No fees are believed to be due in connection with the

filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R.

§§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the

Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit

Account No.: 50-1212/UTSC:761US.

Applicant respectfully requests that the listed documents be made of record in the present

case.

Respectfully submitted,

Charles P. Land

Charles P. Landrum Reg. No. 46,855

Agent for Applicant

FULBRIGHT & JAWORSKI L.L.P. 600 Congress Avenue, Suite 2400 Austin, Texas 78701 (512) 474-5201

Date:

October 22, 2003

Form P								
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List of Patents and Publications for Applicant's				Applicant	UTSC:761US 10/629,329			
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	C1			deficient mice devel 1260-1268, 1998.	lop early	onset osteopo	prosis and arterial	
	C2			F-κB by RANK requ I NF-κB-inducing ki				
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	C4 C5 C6	Darnay et al., "C (RANK)," J. Bio Dougall et al., "I 13:2412-2424, I! Fujikawa et al., " Endocriol., 137(! GenBank Access GenBank Access Hofbauer, "The I	A. Chem., 273(RANK is essen 1999. The human os 19):4058-4060, 19)	n of the intracellular 32):20551-20555, 1 tial for osteoclast are steoclast precursor ci 1996.	998. Ind lymph Irculates i	of receptor ac node develop n the moncyt	tivator of NF-κB oment," Genes Dev. te fraction,"	
	C4 C5 C6 C7	Darnay et al., "C (RANK)," J. Bio Dougall et al., "I 13:2412-2424, 1 Fujikawa et al., ' Endocriol., 137(GenBank Access GenBank Access Hofbauer, "The rof bone resorption	A. Chem., 273(RANK is essen 1999. The human os 19):4058-4060, 19):4058-4060, 19:4058-	n of the intracellular 32):20551-20555, 1 tital for osteoclast are steoclast precursor of 1996. 8863 2963 rotegerin and osteop	orotegerin 2, 2000.	node develop n the moncyt	e fraction,"	
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List of Patents and Publication	ons for Applicant's	

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Serial N . 10/629,329

Applicant
Bryant G. Darnay

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date: July 29, 2003 Group: Unknown

U.S. Patent Documents

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Foreign Patent Documents

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Other Art See Page 1

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C11	Li et al., "RANK is the intrinsic hematopoietic cell surface receptor that controls osteoclastogenesis and regulation of bone mass and calcium metabolism," Proc. Natl. Acad. Sci., USA, 97(4):1566-1571, 2000.
	C12	Mizuno et al., "Severe osteoporosis in mice lacking osteoclastogenesis inhibitory factor/osteoprotegerin," Biochem. Biophys. Res. Commun., 247:610-615, 1998.
	C13	Okahashi et al., "Osteoclast differentiation is associated with transient upregulation of cyclin-dependent kinase inhibitors p21WAF1/CIP1 and p27KIP1," J. Cell Biochem., 80(3):339-345, 2001.
	C14	Pullen et al., "CD40 signaling through tumor necrosis factor receptor-associated factors (TRAFs)," J. Biol. Chem., 274:14246-14254, 1999.
	C15	Scheven <i>et al.</i> , "In vitro osteoclast generation from different bone marrow fractions, including a highly enriched haematopoietic stem cell population," <i>Nature</i> , 321:79-81, 1986.
	C16	Takayanagi et al., "Induction and activation of the transcription factor NFATc1 (NAFT2) integrate RANKL signaling in terminal differentiation of osteoclast," Dev. Cell, 3(6):889-901, 2002.

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EXAMINER:

DATE CONSIDERED:

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